

PIN19

ECONOMICAL EVALUATION OF DARUNAVIR + LOW DOSE RITONAVIR IN TREATMENT-EXPERIENCED HIV-1-INFECTED PATIENTSVorobiev P¹, Avksentieva M², Lesnicheva M³¹Moscow Medical Academy named after M.I.Sechenov, Moscow, Russia, ²Moscow Medical Academy named after M.I.Sechenov, Moscow, Moscow, Russia, ³Russian Society For Pharmacoeconomics and Outcomes Research, Moscow, Russia

OBJECTIVE: To perform an economical evaluation of darunavir + low-dose ritonavir (DR) vs other protease inhibitors (PIs) in treatment-experienced HIV-1-infected patients in the Russian health care system. **METHODS:** The modeled study was performed. A proportion of patients receiving alternative PIs, dosing regimen, and efficacy of drugs were extracted from multicenter randomized studies POWER 1 and 2 (Lancet 2007; 369:1169–78). The effect was measured in proportion of patients with viral load reduction of 1 log 10 copies/ml or greater from baseline and with viral load less than 50 copies/ml. Other PIs in POWER studies were lopinavir + ritonavir, saquinavir, amprenavir, atazanavir, indinavir, nelfinavir; all patients in both groups received optimized background regimen. Cost of treatment with PIs for 48 weeks and cost-effectiveness ratio (CER) were calculated from the Russian reimbursement system point of view. **RESULTS:** According to POWER studies, DR was much more effective than other PIs (61 vs 15% of patients had viral load reduction ≥ 1 log 10 copies/ml and 45 vs 10% achieved viral load <50 copies/ml), while cost of treatment was a little more for DR than other PIs (370,786.08 vs. 330,747.59 rubles or 15,105.64 vs USD 13,474.47). Incremental CER was 87,000 rubles (USD 3544.34) for one patient with viral load reduction ≥ 1 log 10 copies/ml and 114,400 rubles (USD 4660.60) for one patient with viral load <50 copies/ml that seems reasonable for expensive antiHIV treatment. **CONCLUSION:** According to the model, DR seems to be much more effective than other PIs with affordable CER incremental ratio. Evaluation of DR treatment effectiveness and safety in common practice is needed.

PIN20

PHARMACOECONOMICS OF CHRONIC HEPATITIS B AND HEPATITIS C

Freiberger M, Ageichenko V, Vegeris I, Babarykin D

Medical Consulting Service Ltd, Riga, Latvia

OBJECTIVE: Globally, an estimated 170 million persons are chronically infected with hepatitis C virus (HCV) and 350 million—with hepatitis B (HBV). New HCV and HBV medicines are 100%–400% more costly and have a negative impact on the budget. The aim of this study was to calculate, in the health care payer perspective, the cost effectiveness (CE) of new medicines for HCV and HBV treatment in comparison with the previous generation ones. **METHODS:** This analysis compares the CE of entecavir, adefovir dipivoxil versus lamivudine in previous therapy refractory HBV patients and the CE of peginterferon alfa with interferon alfa in chronic HCV patients. Data of clinical effectiveness have been extracted from clinical studies published in electronic databases (PubMed, Embase com, Medscape, Cochrane Library) from 1990 to 2007 December. Only direct medical costs (medicines) have been estimated. Costs were based upon average wholesale price and State Reimbursement list prices. A decision analytic model, made by TreeAge DATA Professional program, has been used. **RESULTS:** The use of new generation medicines, such as adefovir dipivoxil and entecavir, is not cost effective for chronic HBV therapy in patients with unsuccessful previous therapy due to high prices; however the difference of effectiveness reaches 80%. Peginterferon alfa

for chronic HCV compared with nonpegylated interferonum is cost effective if the difference of effectiveness reaches 40% or the shorter (12 week) course of pegylated interferon is needed. **CONCLUSION:** Despite the high medicines clinical effectiveness, the new medicines are not cost effective compared with previous generation for the chronic HCV and HBV treatment due to high prices. Wherewith, the generic (cheaper?) medicines income to the market is inescapable. Prospective studies including indirect costs are necessary.

PIN21

COST-EFFECTIVENESS OF ANIDULAFUNGIN THERAPY IN CONFIRMED CANDIDEMIA AND OTHER FORMS OF INVASIVE CANDIDIASIS IN CANADAGraham CN¹, Earnshaw SR¹, Raymond V²¹RTI Health Solutions, Research Triangle Park, NC, USA,²Pfizer Canada Inc, Kirkland, QC, Canada

OBJECTIVE: Candidemia is a nosocomial bloodstream infection associated with considerable mortality and is costly to treat. A new echinocandin, anidulafungin, has been shown to be effective in treating candidemia and other forms of invasive candidiasis (henceforth, candidemia). The objective of this study was to compare cost and outcomes of anidulafungin with current standard of care in Canada, and fluconazole, for the treatment of candidemia in non-neutropenic adult patients. **METHODS:** A decision tree was constructed to examine the cost-effectiveness of anidulafungin compared with fluconazole, in the treatment of candidemia. Data on treatment success, renal toxicity, duration of intravenous and oral antifungal treatment, and patient survival were obtained from a published, randomized, double-blind trial comparing anidulafungin with fluconazole. Separate analyses of the clinical trial data were performed to obtain length of stay in the intensive care unit and general ward for each arm of the trial. Therapy switching and additional resource use were obtained from surveys of Canadian clinicians. Medical and drug costs were taken from standard Canadian costing sources and the published literature. The incremental cost per successfully treated patient was calculated. Sensitivity analyses were performed. **RESULTS:** The percentage of successfully treated patients is higher for patients treated with anidulafungin than with fluconazole (74.02% vs. 56.78%). Treating with anidulafungin results in higher antifungal drug costs \$4792 vs. \$2651; however, overall costs are lower for treatment with anidulafungin than for treatment with fluconazole (\$62,949 vs. \$65,954, respectively) due to an offset in other medical costs, mainly in ICU where anidulafungin is associated with savings of \$6707. Thus, treating with anidulafungin is cost-savings (less costly and more efficacious) when compared to treating with fluconazole. **CONCLUSION:** Anidulafungin has demonstrated improved clinical efficacy versus standard of care in treating candidemia. Despite an increase in drug costs, treating candidemia with anidulafungin is a cost-saving strategy.

PIN22

PHARMACOECONOMIC ANALYSIS BASED ON GUIDELINES FOR TREATING MILD DIABETIC FOOT INFECTIONS: A DECISION TREE MODEL FOR CANADA

Chow J, Lemos EV, Marr P, Machado M, Einarson TR

University of Toronto, Toronto, ON, Canada

OBJECTIVE: Limited information exists to guide clinicians in selecting antibiotics for diabetic foot infections. Because this serious complication causes substantial morbidity, mortality, and incurs major health care costs, we developed a decision tree model to determine, from the Ministry of Health's perspective,